

Basic Information

Product Name	Anti-APEX1 Antibody (Clone#OTI1H9)
Gene Name	APEX1
Source	Mouse
Clonality	Monoclonal
Isotype	IgG1
Species Reactivity	human, mouse, rat, dog, monkey
Tested Application	WB, IHC
Contents	PBS (PH 7.3) containing 1% BSA, 50% glycerol and 0.02% sodium azide.
Immunogen	Human recombinant protein fragment corresponding to amino acids 1-242 of human APEX1 (NP_001632) produced in E.coli.
Concentration	500 ug/ml
Purification	Purified from mouse ascites fluids or tissue culture supernatant by affinity chromatography (protein A/G)
Observed MW	35.4 kDa
Dilution Ratios	Western blot (WB): 1:2000 Immunohistochemistry (IHC):1:150

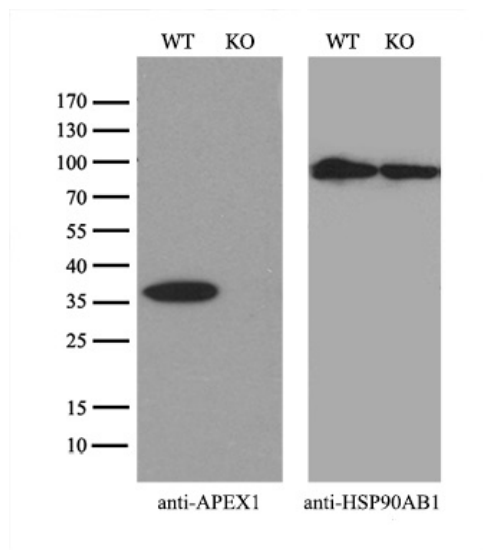
Storage

Stable for 12 months from date of receipt. Store at -20°C as received.

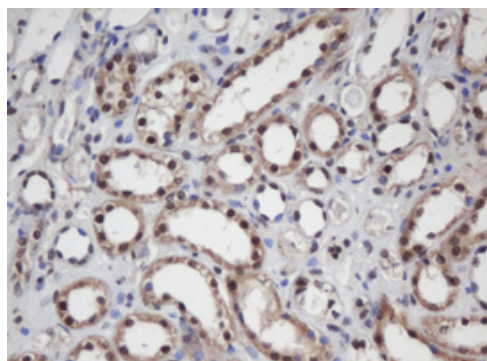
Background Information

APEX1, also called apurinic endonuclease(APE), is a DNA repair enzyme having apurinic/apyrimidinic(AP) endonuclease, 3-prime,5-prime-exonuclease, DNA 3-prime repair diesterase, and DNA 3-prime-phosphatase activities. The human APEX1 gene consists of 5 exons spanning 2.64 kb and exists as a single copy in the haploid genome. Using in situ hybridization, the APEX1 gene is mapped to 14q11.2-q12. The predicted APEX1 protein, which contained probable nuclear transport signals, was identified as a member of a family of DNA repair enzymes found in lower organisms. The abundance of the large form of APEX1 was increased in leiomyoma extracts relative to myometrial tissue extracts, and the large form was dominant in cell lines derived from leiomyosarcomas. The exonuclease activity of nuclear APEX1 can remove the anti-HIV nucleoside analogs AZT and D4T from the 3-prime terminus of a nick more efficiently than can cytosolic exonucleases.

Selected Validation Data



Equivalent amounts of cell lysates (10 ug per lane) of wild-type 293T cells (WT) and APEX1-Knockout 293T cells (KO) were separated by SDS-PAGE and immunoblotted with anti-APEX1 monoclonal antibody M00627-4, (1:500). Then the blotted membrane was stripped and reprobed with anti-HSP90AB1 antibody ([M01692-2]) as a loading control.



Immunohistochemical staining of paraffin-embedded Human Kidney tissue within the normal limits using anti-APEX1 mouse monoclonal antibody. (Heat-induced epitope retrieval by 10mM citric buffer, pH6.0, 100°C for 10min, M00627-4)